Cardiovascular and Respiratory Failure Associated with Tracheotomy, New England J. Med. 261: 846 (Oct. 22) 1959.)

CARDIAC ARREST A patient with 10 per cent third degree burns suffered cardiac arrests upon intubation after receiving thiobarbiturate, succinyl choline, oxygen and nitrous oxide on both his fourth and sixth anesthetics. He was very frightened before both procedures. After the second arrest and resuscitation the operation was resumed, the patient recovering without sequelae. Resumption of the operation after resuscitation is recommended if the patient is young, in good condition and resuscitation has been prompt. (*Finer, B. L., and Nylen, B. O.: Double Cardiac Arrest with Survival, Brit. M. J. 1: 624 (March 7) 1959.*)

HEART BLOCK Ventricular contraction will occur and permit control of the heart rate with application of low voltage (0.5–4.0 volts) repetitive electric stimuli to the endocardium in dogs. No evidence of trauma to the endocardium resulted after several hours of stimulation. It has been shown that the ventricles remained susceptible to such electrical stimulation from the endocardial surface upon surgical production of heart block in dogs. Clinical applications are cited. (*Furman, S., and Robinson, G.: Stimulation of Ventricular Endocardial Surface in Control of Complete Heart Block, Ann. Surg. 150: 841 (Nov.) 1959.*)

CARDIAC OUTPUT The cardiac output in nineteen patients following intracardiac operation with extra-corporeal circulation was greater than 2.4 liters per minute per square meter of surface area, and the mixed venous oxygen saturation was above 60 per cent. There were no serious cardiovascular difficulties in the early postoperative period in any of of these cases. The cardiac output in another series of fifteen patients showed a marked decrease after surgery, being under 2.0 liters per minute per square meter, with some as low as 0.9 liters per minute. The etiology of the low cardiac output was undetermined in over 50 per cent of the cases. It is significant to note that the actual cardiac output measurement or the mixed venous oxygen content showed a decrease some hours before the low output was evident by clinical signs alone. (*Boyd, A. A., and others: Estimation of Cardiac Output Soon After Intracardiac Surgery with Cardiopulmonary Bypass, Ann. Surg. 150: 613 (Oct.) 1959.*)

POST BYPASS HEMORRHAGE Various extracorporeal techniques have significant effects on clotting mechanisms but with a routine and set technique clotting disorders should be minimized. Emphasis should be placed on proper pre-op blood work up including platelet count, bleeding and clotting times, and on post by-pass evaluation of proper heparin neutralization with adequate doses of protamine. Excess doses of protamine which can cause anti-coagulant effects must be avoided. Bleeding problems are seldom encountered after short periods of total by-pass (30–60) minutes, but increase in frequency after periods of 2 hours or more. (*Perkins, H. A., Osborn, J. J., and Gerbode, F.: Management of Abnormal Bleeding following Extracorporeal Circulation, Ann. Int. Med. 51: 658 (Oct.) 1959.*)

EDGLUGATE-MG This blood anticoagulant-preservative consists of a mixture of disodium ethylenediamine tetraacetic acid, glucose, sodium gluconate and magnesium chloride. It was developed to permit use during perfusion of blood which had been stored temporarily. At the end of the five day storage period there was increased plasma potassium content and depression of antihemophilic globulin, and Factor V levels. It was used in 81 perfusion cases for priming the extracorporeal apparatus. (*Smith, W. W., and others: Studies of Edglugate-Mg: A New Donor Blood Anticoagulant-Preservative Mixture for Extracorporeal Circulation, Thoracic & Cardiovasc. Surg. 38: 573 (Nov.) 1959.*)

BLOOD COAGULATION Fifteen patients were anesthetized to plane 2 of cyclopropane anesthesia, and 6 patients were likewise anesthetized and made hypercarbic by rebreathing. A battery of tests designed to detect changes in blood coagulation were performed preoperatively, during second plane anes-